



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
SPECIAL TROPICAL WEATHER OUTLOOK**

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 13.09.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL OF BENGAL OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 13.09.2021 BASED ON 0300 UTC OF 13.09.2021.

BAY OF BENGAL:

THE DEEP DEPRESSION OVER NORTH COASTAL ODISHA MOVED FURTHER WEST-NORTHWESTWARDS DURING PAST 6 HOURS WITH A SPEED OF 12 KMPH, AND LAY CENTRED AT 0300 UTC OF TODAY, THE 13TH SEPTEMBER, 2021, OVER NORTH COASTAL ODISHA, NEAR LATITUDE 20.9°N AND LONGITUDE 86.5°E, ABOUT 20 KM WEST-NORTHWEST OF CHANDBALI (42973) AND ABOUT 120 KM EAST- SOUTHEAST OF KEONJHARGARH (42891).

IT IS VERY LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTH ODISHA, NORTH CHHATTISGARH & MADHYA PRADESH DURING NEXT 48 HOURS. IT IS VERY LIKELY TO WEAKEN INTO A DEPRESSION DURING THE NEXT 24 HOURS.

AS PER INSAT 3D IMAGERY AT 0300 UTC, THE SYSTEM IS LYING OVER LAND. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL, ODISHA AND ADJOINING NORTH COASTAL ANDHRA PRADESH AND GANGETIC WEST BENGAL. MINIMUM CLOUD TOP TEMPERATURE IS -93°C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER NORTH & ADJOINING WESTCENTRAL BAY OF BENGAL AND ALONG & OFF ODISHA, WEST BENGAL & NORTH ANDHRA PRADESH COASTS DURING NEXT 12 HOURS. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA.

AT 0300UTC OF 13TH SEP, COASTAL STATIONS CHANDBALI, PARADIP AND BALASORE REPORTED MEAN SEA LEVEL PRESSURE(MSLP) OF 991.0, 994.6 AND 992.5 HPA WITH 24 HOURS PRESSURE CHANGE OF -6.2 HPA, -3.5 AND -5.1 HPA RESPECTIVELY.

A BUOY LOCATED NEAR LAT 17.5DEG N/LONG 89.1 DEG E MSLP OF 1001.9 HPA AND WINDS OF 100 DEG/21.4 KTS. ANOTHER BUOY NEAR LAT 16.3DEG N/LONG 87.9 DEG E REPORTED 1002.4HPA AND WINDS OF 200 DEG/15.6 KT. ANOTHER BUOY NEAR LAT 13.9DEG N/LONG 86.9 DEG E REPORTED 1005.2HPA AND WINDS OF 220 DEG/19.4 KT.

REMARKS:

THE FAVOURABLE CONDITIONS LIKE SEA SURFACE TEMPERATURE (SST) OF ABOUT 29-30°C OVER NORTHWEST BAY OF BENGAL (BOB), THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) OF ABOUT 80-100 KJ/CM² OVER THE SAME AREA, FAVOURABLE PHASE OF MADDEN JULIAN OSCILLATION (MJO) INDEX LYING IN PHASE 3 WITH AMPLITUDE MORE THAN 1, HIGH POSITIVE VORTICITY, LOW VERTICAL WIND SHEAR AND FAVOURABLE UPPER LEVEL DIVERGENCE WILL SUPPORT SYSTEM IN MAINTAINING ITS INTENSITY DURING NEXT 12 HOURS. A ZONE OF POSITIVE VORTICITY ($150 \times 10^{-6} \text{S}^{-1}$) AT LOWER LEVEL LIES AROUND THE SYSTEM CENTRE OVER COASTAL ODISHA & ADJOINING NORTHWEST BOB. THE POSITIVE VORTICITY ZONE IS EXTENDING UPTO 200 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE $20 \times 10^{-5} \text{S}^{-1}$ IS SEEN OVER COASTAL ODISHA AND ADJOINING NORTHWEST BOB. THE VERTICAL WIND SHEAR (VWS) IS MODERATE (10-15 KTS) OVER THE COASTAL ODISHA AND IS EXTENDING WEST-NORTHWESTWARDS UPTO GUJARAT .

THOUGH THE SYSTEM HAS ENTERED LAND, THE PREVAILING ACTIVE MONSOON CONDITIONS, THE EXISTING ENVIRONMENTAL CONDITIONS AND MODEL GUIDANCE ARE INDICATING THAT THE DEEP DEPRESSION WILL MAINTAIN ITS INTENSITY DURING NEXT 12 HOURS BEFORE WEAKENING INTO A DEPRESSION. THE UPPER TROPOSPHERIC RIDGE RUNS NEAR 22 DEG N, TO THE NORTH OF THE SYSTEM CENTRE. THE SYSTEM IS BEING STEERED BY THE MEAN WINDS IN MIDDLE AND UPPER TROPOSPHERE (500-850 HPA LEVELS) TOWARDS WESTNORTHWEST. IT WILL CONTINUE TO STEER SO DURING NEXT 2-3-DAYS.

THE NEXT BULLETIN WILL BE ISSUED AT 0900 UTC OF 13TH SEPTEMBER, 2021.

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OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER NORTH COASTAL ODISHA BASED ON 0300 UTC OF 13TH SEPTEMBER, 2021



DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

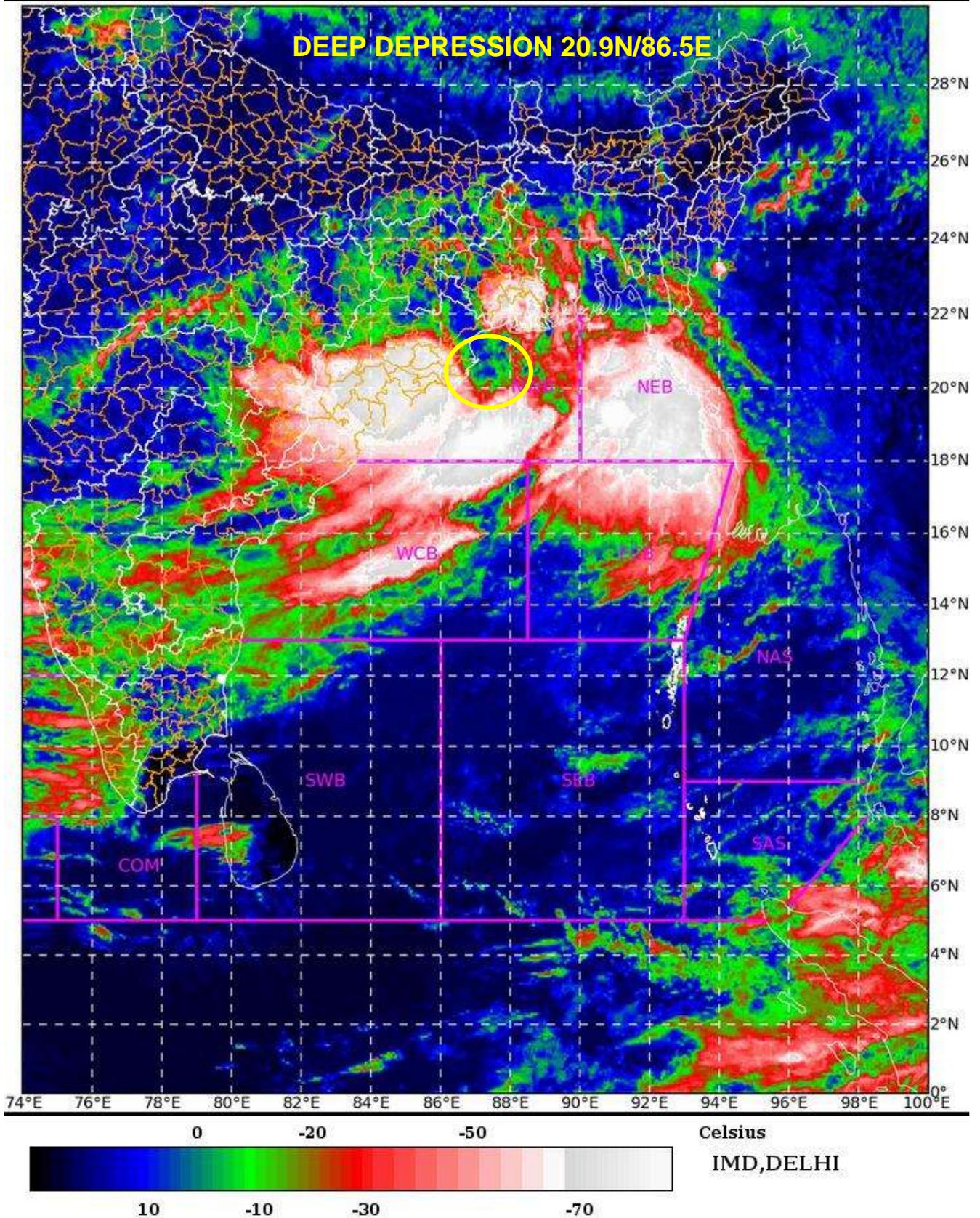
SAT : INSAT-3D IMG

13-09-2021/(0500 to 0526) GMT

IMG_TIR1_TEMP 10.8 um

13-09-2021/(1030 to 1056) IST

L1C Mercator



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%
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